

DAFTAR PUSTAKA

- [1] I. Keramik, A. Gelas, and T. E. Tinggi, “Insulator keramik atau gelas tegangan tinggi / tegangan ekstra tinggi,” no. 0259, 2021.
- [2] H. Fadaei, F. Faghihi, and H. Mohammadnezhad, “A Review of Partial Discharge Signals Occurrence in Polluted High Voltage Insulator,” no. March, pp. 51–78, 2021.
- [3] S. Agarwal, V. M. Babu, G. Gobinath, and G. Pandian, “Experimental Analysis of Ceramic Insulators with Different Profiles Under Very High Pollution Zone by Solid Layer Method,” vol. 14, no. 01, pp. 1–6, 2022.
- [4] R. J. Villalobos, L. A. Moran, and F. Huenupán, “A New Current Transducer for On-Line Monitoring of Leakage Current on HV Insulator Strings,” vol. 10, no. April, 2022, doi: 10.1109/ACCESS.2022.3191349.
- [5] A. A. Nekahi and S. G. M. M. Farzaneh, “Effect of pollution severity and *Dry Band* location on the *Flashover* characteristics of silicone rubber surfaces,” *Electrical Engineering*, vol. 99, no. 3, pp. 1053–1063, 2017, doi: 10.1007/s00202-016-0473-3.
- [6] F. A. Jamaludin and C. S. Chao, “Effect Analysis of Pollutant Distribution on the *Flashover* Performance of Porcelain and Composite insulator using Finite Element Method,” no. 1, 2024.
- [7] P. Huang *et al.*, “Electric field distribution analysis of polluted composite insulators based on COMSOL,” vol. 085018, pp. 1–11, 2025, doi: 10.1063/5.0289429.
- [8] J. Araya, J. Montaña, and R. Schurch, “Electric Field Distribution and Leakage Currents in Glass Insulator Under Different Altitudes and Pollutions Conditions using FEM Simulations,” vol. 19, no. 8, pp. 1278–1285, 2021.
- [9] Z. Fangrong, Z. Zhijin, P. Guohui, M. A. Yutang, Z. Hualong, and G. Hao, “Electric field distribution of 110 kV insulator under uneven pollution,” *2023 IEEE Sustainable Power and Energy Conference (iSPEC)*, pp. 1–5, doi: 10.1109/iSPEC58282.2023.10402967.
- [10] M. A. Badwey, M. Asif, and U. A. Khan, “Electric Field Augmentation on Surfaces of Field Aged Composite Insulators Under Varying Contamination

Najma Zahra, 2026

ANALISIS PENGARUH POLUSI TERHADAP DISTRIBUSI MEDAN LISTRIK ISOLATOR KERAMIK U120B PADA SISTEM 150 KV MENGGUNAKAN SIMULASI COMSOL MULTIPHYSICS

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[www.upnvj.ac.id-www.library.upnvj.ac.id-www.repository.upnvj.ac.id]

- Conditions,” *IEEE Access*, vol. 13, no. July, pp. 160048–160066, 2025, doi: 10.1109/ACCESS.2025.3609529.
- [11] A. Banik, A. Mukherjee, and S. Dalai, “Development of a pollution *Flashover* model for 11 kV porcelain and silicon rubber insulator by using COMSOL *Multiphysics* Development of a pollution *Flashover* model for 11 kV porcelain and silicon rubber insulator by using COMSOL *Multiphysics*,” *Electrical Engineering*, no. January, 2018, doi: 10.1007/s00202-017-0520-8.
- [12] A. S. Carrascal and G. L. Andres, “Suspension Insulator String Voltage Distribution : Analysis , Design , and Optimization,” no. September, 2025.
- [13] T. J. Overbye, *Power System Analysis University of Illinois*.
- [14] U. Carrying, K. Jumper, N. Keramik, and C. Insulator, “Daftar isi”.
- [15] K. Belhouchet, “Experimental Investigation On Dielectric Properties Of 1512L Insulator Using Finite Element Analysis (FEM),” vol. 25, no. 2, pp. 1–9, 2024, doi: 10.29354/diag/186863.
- [16] S. Standard, *SIST Preview SIST Preview*. 1998.
- [17] L. Pengujian, “PUSAT,” vol. 3, pp. 1–18, 2023.
- [18] R. Salhi, A. Mekhaldi, M. Tegar, and O. Kherif, “Simulation and Experimental Analysis of Electrical Characterization of Cap-Pin Glass Insulator under Uniform and Non-Uniform Pollution Layers,” vol. 68, no. 4, pp. 381–391, 2024.
- [19] H. A. Illias *et al.*, “*Corona Ring* Design Impact on the Electric Field Distribution Surrounding an Insulator String,” *2021 IEEE International Conference on the Properties and Applications of Dielectric Materials (ICPADM)*, no. Icpadm, pp. 402–405, 2021, doi: 10.1109/ICPADM49635.2021.9493932.
- [20] Z. Qiu *et al.*, “Optimized Design of Shed Parameters for Polluted Hollow Porcelain Insulators at High Altitude,” no. June, pp. 63451–63462, 2023.
- [21] M. Hasanah, “A Novel Model for Prediction of *Flashover* 150kV Polluted Insulator Based on Nonlinear Autoregressive External Input Neural Network,” vol. 11, no. 3, pp. 156–161, 2024.

- [22] S. J. Ghasemnezhad, M. Mirzaie, and A. Gholami, "Simulation and Analysis of Voltage Distribution and Leakage Current in Porcelain and Glass Insulator Strings Considering of Pollution , String Deviation , and Defective Units Effects," vol. 39, no. 10, pp. 2383–2394, 2026, doi: 10.5829/ije.2026.39.10a.03.
- [23] V. Popovtsev, "Improvement of Voltage Distribution Uniformity Factor for Glass Suspension Insulator String".
- [24] A. S. Antonov, S. Member, D. A. Glushkov, and S. Y. Kropotuhin, "A Set of Models for Investigation of Voltage Distribution along Suspension Insulator String," pp. 519–524, 2016.
- [25] H. Benguesmia, "Finite Element Modeling For Electric Field And Voltage," vol. 24, no. 2, pp. 1–9, 2023, doi: 10.29354/diag/159517.
- [26] A. Ren, "Influence Analysis and Prediction of ESDD and NSDD Based on Random Forests," pp. 1–19, 2017, doi: 10.3390/en10070878.
- [27] I. Fofana, J. S. N, A. Betie, and E. Hounton, "Lessons to Learn from Post-Installation Pollution," pp. 1–11, 2020.
- [28] Z. Zhang, X. Qiao, Y. Zhang, L. Tian, D. Zhang, and X. Jiang, "AC *Flashover* performance of different shed configurations of composite insulators under fan-shaped non-uniform pollution," vol. 3, pp. 199–206, 2018, doi: 10.1049/hve.2018.0002.
- [29] M. A. Douar, A. Mekhaldi, and M. C. Bouzidi, "*Flashover* Process and Frequency Analysis of the Leakage Current on Insulator Model under non-Uniform Pollution Conditions," pp. 1284–1297, 2010.
- [30] C. Badachi and P. Dixit, "Prediction of pollution *Flashover* voltages of ceramic string insulators under uniform and non-uniform pollution conditions," *Journal of Electrical Systems and Information Technology*, vol. 3, no. 2, pp. 270–281, 2016, doi: 10.1016/j.jesit.2016.01.003.
- [31] H. R. Sezavar, S. Hasanzadeh, and N. Fahimi, "A novel hybrid mathematical deep learning technique for early warning of *Flashover* in composite insulators," pp. 1–23, 2025.
- [32] P. L. P. Insulator, "Discharge Behavior and Morphological Characteristics of Suspended Water-Drop on Shed Edge during Rain *Flashover* of," 2021.

- [33] Z. Li, J. Liu, S. Li, Y. Ohki, and H. Gao, “- mechanisms,” no. November 2022, pp. 853–877, 2023, doi: 10.1049/hve2.12340.
- [34] B. Mallikarjuna, K. N. Ravi, V. Muralidhara, and N. Vasudev, “Electric Field and Potential Distribution of Porcelain Insulator using FEM Method,” vol. 3075, no. 4, pp. 134–137, 2021, doi: 10.35940/ijitee.D8531.0210421.
- [35] H. Benguesmia, N. M. Ziou, and A. Boubakeur, “Simulation Of The Potential And Electric Field Distribution On High Voltage Insulator Using The Finite Element Method,” vol. 19, no. 2, pp. 41–52, 2018, doi: 10.29354/diag/86414.